

LPDES PERMIT NO. LA0005959, AI No. 2245

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

- I. **Company/Facility Name:** Terra Mississippi Nitrogen, Inc.
Donaldsonville Terminal
Post Office Box 310
Donaldsonville, Louisiana 70346
- II. **Issuing Office:** Louisiana Department of Environmental Quality
(LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
- III. **Prepared By:** Sonja Loyd
Water Permits Division
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- Date Prepared:** March 3, 2008
- IV. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed reissuance of an expired Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46*.

* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX.Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.2301.F, 4901, and 4903.

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B. Triad Nitrogen, LLC (LA0005959)

LPDES permit: Effective date - January 1, 2002
 Expiration date - December 31, 2006

LPDES Hydrostatic Test General Permit (LAG670085)
 Effective date - February 1, 2008
 Issuance Date January 10, 2008
 Expiration date - January 31, 2013

Triad Nitrogen, LLC, Melamine Chemicals, Inc. (LA0003441)

LPDES permit: Effective date - January 1, 2005
 Expiration date - December 31, 2010

- C. Date Application Received: The permit renewal application was received on February 22, 2005. An updated application which replaced the February 2005 in its entirety was received on November 16, 2006. Supplemental information needed to complete the permitting process was received on April 18, 2008 and April 24, 2008.

V. **Facility Information:**

- A. Location - 39139 Highway 18 West in Donaldsonville, Ascension Parish (Latitude 30°05'59", Longitude 90°57'21")

B. Applicant Activity -

According to the application, Terra Mississippi Nitrogen, Inc. (TMNI), Donaldsonville Terminal, is comprised of a fertilizer plant (Ammonia Plant II) and storage terminal for the distribution of ammonia, aqua ammonia, and other nitrogen-based products. TMNI is also proposing to add an Urea Ammonium Nitrate (UAN) storage and loading facility to its existing terminal operations.

In 2004, TMNI purchased Melamine Chemical Company which is the previous owner of Triad Nitrogen, LLC (LA0005959) and Triad Nitrogen, LLC, Melamine Chemicals, Inc. (LA0003441). TMNI has requested that LPDES permit LA0003441 be incorporated into LPDES permit LA0005959 and reissued as a consolidated permit. LPDES permit LA0003441 will be terminated upon reissuance of LPDES permit LA0005959.

Triad Nitrogen, LLC (LA0005959) previously consisted of Ammonia Plants I and II and an Urea Plant. Triad Chemical Company (LA0005959) was the previous owner of Ammonia Plant I and the Urea Plant. Ampro Fertilizer, Inc. (LA0051136) previously operated

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Ammonia Plant II. In 1999, Triad Chemical Company and Ampro Fertilizer, Inc. were merged into Triad Nitrogen, LLC and granted authority to operate under LPDES permit LA0005959. To date, since the acquisition of Triad Nitrogen, LLC by TMNI, Ammonia Plant I and the Urea Plant have ceased operations and have been dismantled.

Triad Nitrogen, LLC, Melamine Chemicals, Inc. previously operated the melamine plant under LPDES permit LA0003441 which is located immediately adjacent to Triad Nitrogen, LLC (LA0005959). To date, since the acquisition of Triad Nitrogen, LLC, Melamine Chemicals, Inc. by TMNI, this facility has ceased operations and has been dismantled.

Therefore, under the new infrastructure, only Ammonia Plant II will remain operational and the areas at the facility that make up the storage terminal operations.

- C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline

Fertilizer Manufacturing
 Point Source Category

Reference

40 CFR 418, Subpart B

Other sources of technology based limits:

LPDES permit LA0005959 (effective January 1, 2002)
 LPDES permit LA0003441 (effective January 1, 2005)
 1994 Fact Sheet for NPDES permit LA0051136 (effective July 1, 1994)
 LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (USEPA)
 LDEQ Sanitary Discharge General Permit
 Best Professional Judgement

- D. Fee Rate -
1. Fee Rating Facility Type: Major
 2. Complexity Type: VI
 3. Wastewater Type: II
 4. SIC code: 2873

- E. Continuous Facility Effluent Flow - 4.02 MGD (Maximum 30-Day)

VI. Receiving Waters: Mississippi River

1. TSS (15%), mg/L: 50.8
2. Average Hardness, mg/L CaCO₃: 154
3. Critical Flow, cfs: 141,955
4. Mixing Zone Fraction: 0.333
5. Harmonic Mean Flow, cfs: 366,748

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6. River Basin: Mississippi River, Segment No. 070301

7. Designated Uses:

The designated uses are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply.

Information based on the following: LAC 33:IX Chapter 11 and memorandum from the Engineering Section dated December 22, 2005. Hardness and 15% TSS data were taken from ambient monitoring station No. 318 on the Mississippi River at the LA 10 ferry landing in St. Francisville, Louisiana. The critical and harmonic mean flows were taken from the permittee's June 6, 2001 Fact Sheet.

VII. Outfall Information:

Outfall 001

[NOTE: This outfall was previously designated as Outfall 003 in LPDES permit LA0005959 for Triad Nitrogen, LLC.]

- A. Type of wastewater - Process wastewater and process area stormwater runoff from Ammonia Plant II, boiler blowdown, cooling tower blowdown, excess untreated river water, raw river clarifier blowdown, CO₂ knock-out water from Air Liquide/Donaldsonville, miscellaneous wastewaters (comprised of fire systems test water, eyewash station and safety shower water, and general facility wash water), non-process area stormwater runoff, and previously monitored treated sanitary wastewater (Internal Outfalls 101 and 103)
- B. Location - At the point of discharge from the sample collection system located in the northeastern portion of the site in the former Ammonia I area prior to combining with other waters (Latitude 30°05'57", Longitude 90°57'13")
- C. Treatment - Ammonia stripping, pH adjustment, and temperature control
- D. Flow - Continuous, 4.02 MGD, Maximum 30-Day
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River, Subsegment No. 070301

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Internal Outfall 101

[NOTE: This outfall was previously permitted as Internal Outfall 101 in LPDES permit LA0005959 for Triad Nitrogen, LLC.]

- A. Type of wastewater - Treated sanitary wastewater
- B. Location - At the point of discharge located upstream at the sample collection system exiting the former Ammonia Plant I prior to combining with the effluent at Outfall 001 (Latitude 30°05'57", Longitude 90°57'15")
- C. Treatment - Packaged activated sludge treatment system
- D. Flow - Continuous, 0.01 MGD, Maximum 30-Day
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River, Subsegment No. 070301

Internal Outfall 103

[NOTE: This outfall was previously permitted as Internal Outfall 103 in LPDES permit LA0005959 for Triad Nitrogen, LLC.]

- A. Type of wastewater - Treated sanitary wastewater
- B. Location - At the point of discharge from the sewage treatment plant at Ammonia Plant II prior to combining with the effluent at Outfall 001 (Latitude 30°05'46", Longitude 90°57'05")
- C. Treatment - Packaged activated sludge treatment system
- D. Flow - Continuous, 0.01 MGD, Maximum 30-Day
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River Basin, Subsegment No. 070301

Outfall 002

[NOTE: This outfall was previously permitted as Outfall 002 in LPDES permit LA0005959 for Triad Nitrogen, LLC.]

- A. Type of wastewater - Non-process area stormwater runoff

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- B. Location - At the point of discharge located at the northeast corner of the facility between the fence line and the shipping maintenance building prior to combining with other waters (Latitude 30°06'06", Longitude 90°57'10")
- C. Treatment - None
- D. Flow - Intermittent, 0.53 MGD, Maximum 30-Day
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River Basin, Subsegment No. 070301

Outfall 003

[NOTE: The areas that drain to this outfall were previously permitted to discharge from Outfalls 001 and 002 in LPDES permit LA0003441 for Triad Nitrogen, LLC, Melamine Chemicals, Inc.]

- A. Type of wastewater - Non-process area stormwater runoff
- B. Location - At the point of discharge from the former Melamine Plant located in the southwest portion of the site prior to combining with other waters (Latitude 30°05'46", Longitude 90°57'04")
- C. Treatment - None
- D. Flow - Intermittent, 1.0 MGD, Maximum 30-Day
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River Basin, Subsegment No. 070301

VIII. Proposed Permit Limits:

Summary of Proposed Changes From the Current LPDES Permit:

- A. On or about February 23, 2005, this office was notified by letter (dated February 22, 2005) of a transfer of ownership from Mississippi Chemical Company (MCC) to Terra Mississippi Nitrogen, Inc. (TMNI), effective December 21, 2004. MCC previously owned Triad Nitrogen, LLC (LA0005959) and Triad Nitrogen, LLC, Melamine Chemicals, Inc. (LA0003441). After the acquisition of MCC, the permittee requested a name change and transfer of permit responsibility for both facilities. The permittee also requested

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that LPDES permit LA0003441 be incorporated into LPDES permit LA0005959 and be reissued as a consolidated permit.

- B. The permittee is proposing to add a Urea Ammonium Nitrate storage and loading facility to its existing terminal operations. No allocations for Urea will be granted under 40 CFR 418, Subpart C (Urea Subcategory) since this operation does not involve urea manufacturing. Potential contamination from stormwater runoff will be minimized by the fact that the most vulnerable areas are covered and through the permittee's Storm Water Pollution Prevention Plan (SWPPP).

C. Outfall 001

The process-related wastestreams from Ammonia Plant I and the Urea Plant previously permitted at this outfall have been eliminated. The wastestreams from Outfall 003 (Ammonia Plant II) in the current permit will be rerouted to discharge through Outfall 001 in the draft permit. Therefore, the limits and monitoring requirements previously established in the current permit for this outfall will be removed since they are no longer applicable. The new outfall description will reflect these wastestreams in addition to new wastestreams added based on information provided in the 2006 Application and 2008 Application Addendum.

The outfall description will be changed to read as follows: "Process wastewater and process area stormwater runoff from Ammonia Plant II, boiler blowdown, cooling tower blowdown, excess untreated river water, raw river clarifier blowdown, CO₂ knock-out water from Air Liquide/Donaldsonville, miscellaneous wastewaters (comprised of fire systems test water, eyewash station and safety shower water, and general facility wash water), non-process area stormwater runoff, and previously monitored treated sanitary wastewater (Internal Outfalls 101 and 103)".

The outfall location description will be changed to read as follows: "At the point of discharge from the sample collection system located in the northeastern portion of the site in the former Ammonia I area prior to combining with other waters".

The daily maximum and monthly average technology-based mass limits for ammonia will be changed based on the production rate as reported in the 2006 Application. See Section X.B.1 of this Fact Sheet for the rationale used to calculate shipping losses and cooling tower blowdown losses for Ammonia.

The permittee's request for a monitoring frequency reduction for Ammonia from three times per week to once per week has been granted

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in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

A daily maximum limit for TOC and Oil and Grease of 50 mg/L and 15 mg/L, respectively, have been added to the draft permit. These limits are applicable for stormwater discharges based on the LDEQ Stormwater Guidance. The monitoring frequency will be once per month using a grab sample.

The Whole Effluent Toxicity (WET) testing dilution series for Freshwater Acute biomonitoring will be changed to reflect 0.06%, 0.07%, 0.10%, 0.13%, and 0.18% (with 0.13% defined as the biomonitoring critical dilution). The monitoring frequency shall be once per year using a 24-Hour Composite sample. This revision is based on a recommendation from the Technical Support Section in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. The proposed biomonitoring requirements were developed in accordance with U.S. Environmental Protection Agency, Region 6 (USEPA) policy and biomonitoring protocol which is being established in all major permits as a part of the permit reissuance process. See Appendix C for the Biomonitoring Recommendation.

D. Internal Outfall 101

The outfall location description will be changed to read as follows: "At the point of discharge located upstream at the sample collection system exiting the former Ammonia Plant I prior to combining with the effluent at Outfall 001."

The permittee's request for a monitoring frequency reduction for all parameters from once per quarter to once per six months has been granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

E. Internal Outfall 103

This internal outfall will be rerouted to combine with the effluent at Outfall 001 in this draft permit. This internal outfall was previously permitted to combine with the effluent at Outfall 003 in the current permit.

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The permittee's request for a monitoring frequency reduction for all parameters from once per quarter to once per six months has been granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

F. Outfall 002

The outfall description will be changed to read as follows: "non-process stormwater runoff". The discharges of car rinse water and untreated river water will be removed from this outfall.

The permittee's request for a monitoring frequency reduction for Ammonia from once per week to once per quarter has been granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

G. Outfall 003

The wastestreams previously permitted at this outfall have been rerouted to discharge through Outfall 001 in the draft permit due to operational changes that have occurred at this facility.

In the draft permit, the permittee is proposing to discharge only non-process area stormwater runoff from a new Outfall 003 which will receive drainage from areas that were previously permitted to discharge from Outfalls 001 and 002 in LPDES permit LA0003441. Outfall 001 was previously permitted to discharge process wastewater, process area stormwater, utility wastewaters, cooling water, and non-process area stormwater runoff. However, these wastewaters have been eliminated (with the exception of the non-process stormwater runoff). Outfall 002 was previously permitted to discharge non-process area stormwater runoff. Therefore, the limits and monitoring requirements previously established in LPDES permit LA0003441 will be removed and are no longer applicable. Limits and monitoring requirements for TOC, Oil and Grease, and pH will be established at this outfall by BPJ based on the LDEQ Stormwater Guidance and similar outfalls at this facility. The monitoring frequency will be once per quarter using a grab sample.

H. In an effort to adequately evaluate the discharges from Outfalls 001, 101, 103, 002, and 003, a provision requiring the submittal of analytical data not provided in the 2006 Application has been added to the reopener clause in Part II, Paragraph L of the draft permit.

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This provision requires the facility to submit analytical data for these outfalls within one (1) year after the effective date of the permit in accordance with LAC 33:IX.2501.G.7.c (Outfalls 001, 101, and 103) and LAC 33:IX.2511.C.1.a.v (Outfalls 002 and 003). Upon submittal of the analytical data, the LDEQ may choose to modify this permit to change the effluent limits based on this information.

- I. Updated Part II conditions for stormwater discharges associated with industrial activities have been established in the draft permit.
- J. The provision in the Part II conditions that required submittal of DMRs to the Capital Regional Office has been removed from the draft permit. All DMRS sent to the Office of Environmental Compliance/Permit Compliance Unit are scanned into the Electronic Document Management System which is accessible to all LDEQ personnel.

IX. Current Effluent Limits:

See Appendix E - LPDES permit limits for LA0005959 and LA0003441

X. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(1)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination

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of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII.

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48(b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I./40 CFR 122.44(i)]. All monitoring frequencies are based upon BPL and/or consistent with frequencies established in the current permit. The Whole Effluent Toxicity testing frequency is based upon recommendations from the Technical Support Section (See Appendix C).

The proposed effluent limits, monitoring requirements, sample types, and basis of permit limits in the draft permit are as follows:

1. Outfall 001 - Process wastewater and process area stormwater runoff from the Ammonia Plant II, boiler blowdown, cooling tower blowdown, excess untreated river water, raw river clarifier blowdown, CO₂ knock-out water from Air Liquide/Donaldsonville, miscellaneous wastewaters (comprised of fire systems test water, eyewash station and safety shower water, and general facility wash water), non-process area stormwater runoff, and previously monitored treated sanitary wastewater (Internal Outfalls 101 and 103)

The permittee is subject to the Best Available Technology Economically Achievable (BAT) effluent limitation guideline listed below:

<u>Manufacturing Operation</u>	<u>Guideline</u>
Fertilizer Manufacturing	40 CFR 418, Subpart B (418.23 BAT)
Production rate - 1,800 tons/day	

(*1) Calculations and basis of the technology-based mass limits for Ammonia are found in Appendix A. See below for site-specific considerations.

Parameter	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Reference
	unless otherwise stated (mg/L)				
Flow (MGD)	Report	Report	Continuous	Recorder	Current permit
pH Range Excursions No. of Events >60 minutes	---	0 (*1)	Continuous	Recorder	Current permit

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Parameter	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Reference
	unless otherwise stated (mg/L)				
pH Range Excursions Monthly Total Accumulated Time in Minutes	---	446 (*1)	Continuous	Recorder	Current permit
pH (Standard Units)	Report (*1) (Min)	Report (*1) (Max)	Continuous	Recorder	Current permit
Temperature (°F)	106	116	Continuous	Recorder	Current permit
TOC	---	50	1/month	Grab	LDEQ Stormwater Guidance
Oil and Grease	---	15	1/month	Grab	LDEQ Stormwater Guidance
Ammonia (as N)	200 lbs/day	424 lbs/day	1/week	24-hour Composite	Current permit; 40 CFR 418.23
Biomonitoring	See Section D	See Section D	1/year	24-hour Composite	See Section D

(*1) The pH shall be within a range of 6.0 - 9.0 Standard Units at all times subject to the continuous monitoring pH range excursion provision in Part II, Paragraph I of the draft permit.

Site-Specific Consideration(s)

Shipping Losses

The discharges from this outfall were previously permitted at Outfall 003 in the current permit as the result of a merger between Triad Chemical Company (LA0005959) and Ampro Fertilizer, Inc. (LA0051136). Prior to the merger between these two facilities, this outfall was established as Outfall 001 in the 1994 NPDES permit for Ampro Fertilizer, Inc. (LA0051136).

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The effluent guidelines specifically exclude pollutant sources attributable to shipping losses and cooling tower blowdown losses for Ammonia. According to the current permit, discharges attributable to shipping losses for Ammonia at this outfall were determined using the previous permit. Therefore, the allocation for Ammonia from shipping losses will be retained in the draft permit. No information could be located to determine the rationale used to calculate these values.

Cooling tower blowdown losses for Ammonia were not included in the current permit because cooling tower blowdown was not discharged from this outfall. Therefore, the methodology used to determine the cooling tower blowdown losses for Ammonia from the 1994 NPDES permit for Ampio Fertilizer (LA0051136) will be applied by BPJ in this draft permit. The daily maximum and monthly average allocations of 50 mg/L and 20 mg/L, respectively, will be used to determine the losses attributable to cooling tower blowdown by BPJ. See Appendix A.

Monitoring Frequency Reduction

A monitoring frequency reduction for Ammonia from three times per week to once per week has been granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

2. Internal Outfalls 101 and 103 - Treated sanitary wastewater

Sanitary wastewater shall receive limits and monitoring requirements consistent with the current permit. These internal wastewaters are regulated in accordance with LAC 33:IX.711 or 709.B, by BPJ using the LDEQ Sanitary Discharge General Permit and the Louisiana Water Quality Management Plan, Volume 8, Appendix B (Statewide Sanitary Effluent Limits Policy), as applicable. According to the Statewide Sanitary Effluent Limitations Policy, dischargers to the Mississippi River shall receive limits equivalent to secondary treatment.

Parameter	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Reference
	unless otherwise stated (mg/L)				
Flow (MGD)	Report	Report	1/6 months	Estimate	Current permit
BOD ₅	30	45	1/6 months	Grab	Current permit

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Parameter	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Reference
	unless otherwise stated (mg/L)				
TSS	30	45	1/6 months	Grab	Current permit
Fecal Coliform (Colonies/ 100 ml)	200	400	1/6 months	Grab	Current permit

Site-Specific Consideration(s)

Monitoring Frequency Reduction

A monitoring frequency reduction for all of the parameters from once per quarter to once per six months was granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

3. Outfalls 002 and 003 - Non-process area stormwater runoff

Uncontaminated or low potential contaminated stormwater discharged through outfalls not associated with process wastewater shall receive the following limits and monitoring requirements by BPJ in accordance with the current permit, LDEQ Stormwater Guidance, and/or similar outfalls at this facility.

Parameter	Monthly Average	Daily Maximum	Measurement Frequency (*1)	Sample Type	Reference
	unless otherwise stated (mg/L)				
Flow (MGD)	Report	Report	1/quarter	Estimate	BPJ
TOC	---	50	1/quarter	Grab	BPJ
Oil and Grease	---	15	1/quarter	Grab	BPJ
Ammonia	---	100	1/quarter	Grab	BPJ
pH	6.0 S.U. (Min.)	9.0 S.U. (Max.)	1/quarter	Grab	BPJ

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Site-Specific Consideration(s)

Monitoring Frequency Reduction

The monitoring frequency reduction for Ammonia at Outfall 002 from once per week to once per quarter has been granted in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) based on information provided in the 2008 Application Addendum. See Appendix E for the basis of the proposed monitoring frequency reduction.

Storm Water Pollution Prevention Plan Requirements

In accordance with LAC 33:IX.2707.1.3 and [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Sample data from the permittee's 2006 Application was screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendices B-1 and B-2.

In accordance with LAC 33:IX.2707.D.1/40 CFR § 122.44(d)(1), the existing (or potential) discharge (s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard."

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The following pollutants received water quality based effluent limits:

None

TMDL Waterbodies

Subsegment No. 070301 of the Mississippi River Basin is not listed on the 2006 Final Integrated 303(d) List as being impaired.

D. Biomonitoring Requirements

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols. See Appendix C for Biomonitoring Recommendation.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 001 are as follows:

TOXICITY TESTS

FREQUENCY

Acute static renewal 48-hour
 definitive toxicity test
 using Daphnia pulex

1/year

Acute static renewal 48-hour
 definitive toxicity test
 using fathead minnow (Pimephales
 promelas)

1/year

The draft permit additionally requires the reporting of the coefficient of variation (larger of the low-flow and control dilutions) for each test species.

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect

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the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 0.06%, 0.07%, 0.10%, 0.13%, and 0.18%. The low-flow effluent concentration (biomonitoring critical dilution) is defined as 0.13% effluent.

XI. Compliance History/DMR Review:

- A. LDEQ records associated with LPDES permits LA0005959 and LA0003441 were reviewed for the period March 2006 through March 2008. No water enforcement actions were issued during this time period.
- B. A DMR review of the monitoring reports for LPDES permit LA0005959 and LPDES permit LA0003441 covering the monitoring period of February 2006 through March 2008 revealed that there were no effluent violations.
- C. The most recent inspection for these two facilities was performed on October 4, 2007. All areas evaluated were found to be satisfactory.

XII. "IT" Questions - Applicant's Responses

The "IT" Questions along with the permittee's responses can be found in the 2006 application. See Appendix F.

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XIII. Endangered Species:

The receiving waterbody, Subsegment No. 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as an endangered species. LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid Sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XIV. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

XVI. Variances:

No requests for variances have been received by this Office.

XVII. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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